



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/516,820	03/01/2000	Scott W. McLellan	McLellan-13	3203

7590 03/28/2003

Stephen J Weed
Synnestvedt and Lechner LLP
2600 Aramark Tower
1101 Market Street
Philadelphia, PA 19107-2950

EXAMINER

HA, DAC V

ART UNIT	PAPER NUMBER
2634	3

DATE MAILED: 03/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/516,820	MCLELLAN, SCOTT W.	
	Examiner Dac V. Ha	Art Unit 2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 March 2000.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 12-17 is/are allowed.
- 6) Claim(s) 1 and 4-11 is/are rejected.
- 7) Claim(s) 2 and 3 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. **Claims 1, 4-6, 8-11,** are rejected under 35 U.S.C. 102(a) as being anticipated by the admitted prior art.

Regarding claim 8, the admitted prior art on pages 1-3 and Figure 1A of the instant application teaches all the claimed subject matter “A communication system having a protection circuit with first and second string of series connected diodes” in Figure 1A, elements 14, 16, 18, 20; and the claimed subject matter “wherein the string are adapted to carry substantially independent DC currents” on page 2, lines 13-17 and page 3, lines 10-14.

Regarding claim 9, the admitted prior art further teaches the claimed subject matter “wherein the diodes ... power supply terminals” in Figure 1A, element V+ and V-.

Regarding claim 10, the admitted prior art further teaches the claimed subject matter “wherein the first and second ... current therein” on pages 2, line 10 to page 3, line 14.

Regarding claim 11, the admitted prior art further teaches the claimed subject matter “wherein the first and second strings have at least one AC coupling path therebetween” in Figure 1A, elements V_{IN} and V_{OUT}, page 2, lines 3-9.

Regarding claim 1, the admitted prior art teaches all the claimed subject matter in claim 1 as follows:

“first and second diodes and first and second resistors connected in series between first and second power supply terminals;” (Figure 1A, elements R₁, 14, 16, R₂)

“third and fourth diodes and third and fourth resistors connected in series between first and second power supply terminals;” (Figure 1A, elements R₁, 18, 20, R₂)

“wherein the first and second diodes are connected together forming an input terminal and the third and fourth diodes are connected together forming an output terminal” (Figure 1A, , elements V_{IN} and V_{OUT})

In the admitted prior art, the first and third resistors are the same and the second and fourth resistors are the same.

Regarding claim 4, the admitted prior art further teaches the claimed subject matter “wherein the first and third resistors connect to the first power supply terminal, and second and fourth resistors connect to the first power supply terminal” in Figure 1A, element V+ and V-.

Regarding claim 5, the admitted prior art further teaches the claimed subject matter “wherein the first and third resistors have substantially the same value, and the second and fourth resistors have substantially the same value” in Figure 1A, elements R₁, R₂.

Regarding claim 6, the admitted prior art further teaches the claimed subject matter “wherein the second and fourth resistors are the same resistor” in Figure 1A, element R₂.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Katakura et al. (US 4,453,091).

Regarding claim 7, the admitted prior art teaches almost all the claimed subject matter in claim 7, as stated above, except for the claimed subject matter "wherein at least one of the resistor is a current source". However, Katakura et al. disclose a Level Detecting Circuit, which teaches the claimed subject matter "wherein at least one of the resistor is a current source" is known in the art (Figure 4, element 36; Col. 8, line 46 to Col. 10, line 19). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize such a current source as taught by Katakura et al. in such system in the admitted prior art to overcome ripple components and thus improve performance of the system (Col. 10, lines 8-9).

Allowable Subject Matter

5. **Claims 12-17** are allowed.

6. **Claims 2-3** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior art of record, taking individually or collectively, fails to suggest the motivation for incorporating in an apparatus, as claimed, at least the claimed subject "a first capacitor having an input coupled between said first resistor and said first diode, and an output coupled between said third resistor and said third diode; and a second capacitor having an input coupled between said second diode and said second resistor, and an output coupled between said fourth diode and said fourth resistor" in claim 2 (claim 3 depend from claim 2), and similar claimed subject matter in claim 12, 15 (claims 13-14, 16-17 depend therefrom). Thus, claims 2, 3, 12-17 are found to be novel and unobvious over prior art of record.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dumont (US 6,140,858) discloses a Predistortion Circuit For An Analog Signal In A Video Communication Network.

Lam (US 6,396,327) discloses a Method And Apparatus For Reducing Distortion Produced By A Nonlinear Device.

Milman (US 3,671,774) discloses a Zero Recovery Time Two Transistor Multivibrator.

Sano et al. (US 5,994,929) disclose Driver For Display Panel.

Worley et al. (US 5,124,578) disclose a Receiver Designed With Large Output Drive And Having Unique Input Protection Circuit.

Art Unit: 2634

Lum (US 3,628,055) discloses a Staircase Waveform Generator.

Engelbrecht (US 5,006,734) discloses a Bidirectional Current Limiting Circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 703-306-5536.

The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-746-5813 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-5500.

Dac V. Ha
Examiner
Art Unit 2634

DH
March 21, 2003



STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600